IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	:	Katsuura, M. et al.		
Serial No.	:	09/806,368	Group Unit :	TBA
Filed	:	March 28, 2002	Examiner :	TBA
For	:	BONE MORPHOGENETIC PROTEIN ANTAGONIST BASED ON THE MATURE PROTEIN		

Statement Under 37 C.F.R. §1.821(f) or §1.825(b)

Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

I hereby certify that:

[ ]   The paper Sequence Listing submitted herewith and computer readable Sequence Listing attached hereto are identical (37 C.F.R. §1.821(f)).

[X]   The substitute paper Sequence Listing and substitute computer readable Sequence Listing submitted herewith are identical. No new matter is included (37 C.F.R. §1.825(b)).

Respectfully submitted,

BIERMAN, MUSERLIAN AND LUCAS, L.L.P.

Date: _6-28-02_   By: _____
Charles A. Muserlian
Reg. No. 19,683

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PCT09

ENTERED

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   3 <110> APPLICANT: KATSUURA, MIEKO
   4         KIMURA, MICHIO
   6 <120> TITLE OF INVENTION: BONE MORPHOGENETIC PROTEIN ANTAGONIST BASED ON THE
   7         MATURE PROTEIN
   9 <130> FILE REFERENCE: 447.001
  11 <140> CURRENT APPLICATION NUMBER: US 09/806,368D
  12 <141> CURRENT FILING DATE: 2002-06-28
  14 <150> PRIOR APPLICATION NUMBER: PCT/IB99/01621
  15 <151> PRIOR FILING DATE: 1999-10-04
  17 <150> PRIOR APPLICATION NUMBER: JP 10/288,103
  18 <151> PRIOR FILING DATE: 1998-10-09
  20 <160> NUMBER OF SEQ ID NOS: 7
  22 <170> SOFTWARE: PatentIn version 3.1
  24 <210> SEQ ID NO: 1
  25 <211> LENGTH: 119
  26 <212> TYPE: PRT
  27 <213> ORGANISM: Homo sapiens
  29 <220> FEATURE:
  30 <221> NAME/KEY: CHAIN
  31 <222> LOCATION: (1)..(119)
  32 <223> OTHER INFORMATION: Mature MP52
  35 <300> PUBLICATION INFORMATION:
  36 <302> TITLE: NOVEL PROTEIN AND PROCESS FOR PRODUCING THE SAME
  37 <310> PATENT DOC NO: WO9633215
  38 <311> PATENT FILING DATE: 1996-04-19
  39 <312> PUBLICATION DATE: 1996-10-24
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  52 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
  53              35                  40                  45
  56 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
  57      50                  55                  60
  60 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
  61 65                  70                  75                  80
  64 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
  65              85                  90                  95
  68 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
  69              100                 105                 110
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RAW SEQUENCE LISTING   DATE: 07/29/2002
PATENT APPLICATION: US/09/806,368D   TIME: 08:50:37

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Output Set: N:\CRF3\07292002\I806368D.raw

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84 <223> OTHER INFORMATION: Mature BMP-2
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88 <302> TITLE: NOVEL OSTEOINDUCTIVE COMPOSITIONS
89 <310> PATENT DOC NO: WO8800205
90 <311> PATENT FILING DATE: 1987-06-30
91 <312> PUBLICATION DATE: 1988-01-14
92 <313> RELEVANT RESIDUES: (1)..(114)
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104 Val Ala Pro Pro Gly Tyr His Ala Phe Tyr Cys His Gly Glu Cys Pro
105         35                  40                  45
108 Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Val Gln
109     50                  55                  60
112 Thr Leu Val Asn Ser Val Asn Ser Lys Ile Pro Lys Ala Cys Cys Val
113 65                  70                  75                  80
116 Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu Asn Glu
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136 <223> OTHER INFORMATION: Mature BMP-4
139 <300> PUBLICATION INFORMATION:
140 <301> AUTHORs: Wozney, JM et al.
141 <302> TITLE: NOVEL REGULATORS OF BONE FORMATION MOLECULAR CLONES
142         AND ACTIVITIES
143 <303> JOURNAL: SCIENCE
144 <304> VOLUME: 242
145 <305> ISSUE: 4885
146 <306> PAGES: 1528-1534
147 <307> DATE: 1988-12-16
148 <308> DATABASE ACCESSION NO: GENBANK/M22490
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161 Trp Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr Cys His Gly Asp
162         35                  40               45
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166     50                  55               60
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170 65                  70               75               80
173 Cys Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu
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193 <223> OTHER INFORMATION: Mature BMP-7
196 <300> PUBLICATION INFORMATION:
197 <301> AUTHORs: OZKAYNAK, E. et al.
198 <302> TITLE: OP-1 cDNA encodes an osteogenic protein in the TGF-beta.
199 <303> JOURNAL: EMBO J.
200 <304> VOLUME: 9
201 <305> ISSUE: 7
202 <306> PAGES: 2085-2093
203 <307> DATE: 1990-07-01
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217 Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu Tyr Val Ser Phe Arg
218             35                  40               45
221 Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Glu Gly Tyr Ala Ala
222     50                  55               60
225 Tyr Tyr Cys Glu Gly Glu Cys Ala Phe Pro Leu Asn Ser Tyr Met Asn
226 65                  70               75               80
229 Ala Thr Asn His Ala Ile Val Gln Thr Leu Val His Phe Ile Asn Pro
230             85                  90               95
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Input Set : A:\1962-4066.txt
Output Set: N:\CRF3\07292002\I806368D.raw

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253 <223> OTHER INFORMATION: Mature MP52 protein. Note : 30th, 71st, 74th and 111th Met
254       are modified to Met sulfoxide.
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264             20              25              30
267 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
268             35              40              45
271 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
272     50              55              60
275 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
276 65                  70          75                  80
279 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
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298 <222> LOCATION: (1)..(119)
299 <223> OTHER INFORMATION: Mature MP52 protein. Note : 30th and/or 71st and/or 74th
300       and/or 111th Met are modified to s-carboxymethyl Met.
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305 1               5               10              15
308 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
309             20              25              30
312 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
313             35              40              45
316 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
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RAW SEQUENCE LISTING   DATE: 07/29/2002
PATENT APPLICATION: US/09/806,368D   TIME: 08:50:37

Input Set : A:\1962-4066.txt
Output Set: N:\CRF3\07292002\I806368D.raw

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320 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asn Pro Glu Ser Thr Pro
321 65                    70                    75                    80
324 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
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343 <222> LOCATION: (1)..(119)
344 <223> OTHER INFORMATION: Mature MP52 protein. Note :32nd and 35th Trp are modified
345       to allylsulphenyl Trp.
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354 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
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358 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
359               35                    40                    45
362 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
363      50                    55                    60
366 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
367 65                    70                    75                    80
370 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
371                    85                    90                    95
374 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
375               100                   105                   110
378 Val Glu Ser Cys Gly Cys Arg
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VERIFICATION SUMMARY   DATE: 07/29/2002
PATENT APPLICATION: **US/09/806,368D**   TIME: 08:50:38

Input Set : **A:\1962-4066.txt**
Output Set: **N:\CRF3\07292002\I806368D.raw**

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  Directory of A:\
File not found                    1,457,664 bytes free

A:\>
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